

# Fujitsu LifeBook

## N Series

## **BIOS Guide**

LifeBook N Series Models:

N3520

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**F U J I T S U   C O M P U T E R   S Y S T E M S**

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# N Series BIOS

## BIOS SETUP UTILITY

The BIOS Setup Utility is a program that sets up the operating environment for your notebook. Your BIOS is set at the factory for normal operating conditions, therefore there should be no need to set or change the BIOS environment to operate your notebook.

The BIOS Setup Utility configures:

- Device control feature parameters, such as changing I/O addresses and boot devices
- Change the configuration of internal devices
- System security feature parameters, such as passwords

### Entering the BIOS Setup Utility

To enter the BIOS Setup Utility do the following:

1. Turn on or restart your notebook.
2. Press the [F2] key once the Fujitsu logo appears on the screen. This will open the system information window of the BIOS Setup Utility with the current settings displayed.
3. Press the arrow keys to scroll through the other setup menus to review or alter the current settings.

### Navigating Through The Setup Utility

The BIOS setup utility consists of five menus: Main, Advance, Security, Boot, and Exit. This document explains all menus, including submenus and setup items.

The following procedures allow you to navigate the setup utility menus:

1. To select a menu, use the cursor keys: [←], [→].
2. To select a field within a menu or a submenu, use the cursor keys: [↑], [↓].
3. After selecting the field, press the [Enter] button to open the selection window.
4. To change the value for a field, press the [Tab] button to navigate through the fields, use the [Space] and [Up]/[Down] cursor keys to change values, and the numeric keys to change values in numeric fields.
5. To return to a menu from a submenu:
  - Press the [Enter] key or the [OK] button to accept the change and exit.

- Press the [Esc] key or the [Cancel] button to reject the change and exit.



Selecting a field causes a description about that field to be displayed in the bottom panel of the screen.

### Entering the Setup Utility After a Configuration Change or System Failure

If there has been a change in system configuration that does not agree with the parameter settings stored in your BIOS memory, or there is a failure in the system, the system beeps and/or displays an error message after the Power On Self Test (POST). If the failure isn't too severe, it will give you the opportunity to modify the settings of the setup utility, as described in the following steps:

1. When you turn on or restart the computer there is a beep and/or the following message appears on the screen:  
 Error message - please run SETUP program Press <F1> key to continue, <F2> to run SETUP
2. If an error message is displayed on the screen, and you want to continue with the boot process and start the operating system anyway, press the [F1] key.



- If your notebook emits a series of beeps that sounds like a code and the display is blank, refer to the Troubleshooting section of your system Use's Guide. The Troubleshooting Section includes a list of error messages and their meanings.
- If your data security settings require it, you may be asked for a password before the operating system will be opened.

3. If an error message is displayed on the screen, and you want to enter the setup utility, press the [F2] key.
4. When the setup utility starts with a fault present, the system displays the following message:  
 Warning!  
 Error message  
 [Continue]
5. Press any key to enter the setup utility. The system will then display the Main Menu with current parameters values.

## INFORMATION MENU – VIEWING CURRENT SYSTEM PARAMETERS

The Information Menu allows you to view the current system parameters. This is the default screen, and cannot be changed directly.

The following tables show the names of the menu fields for the Information menu. This screen reflects the current system settings.

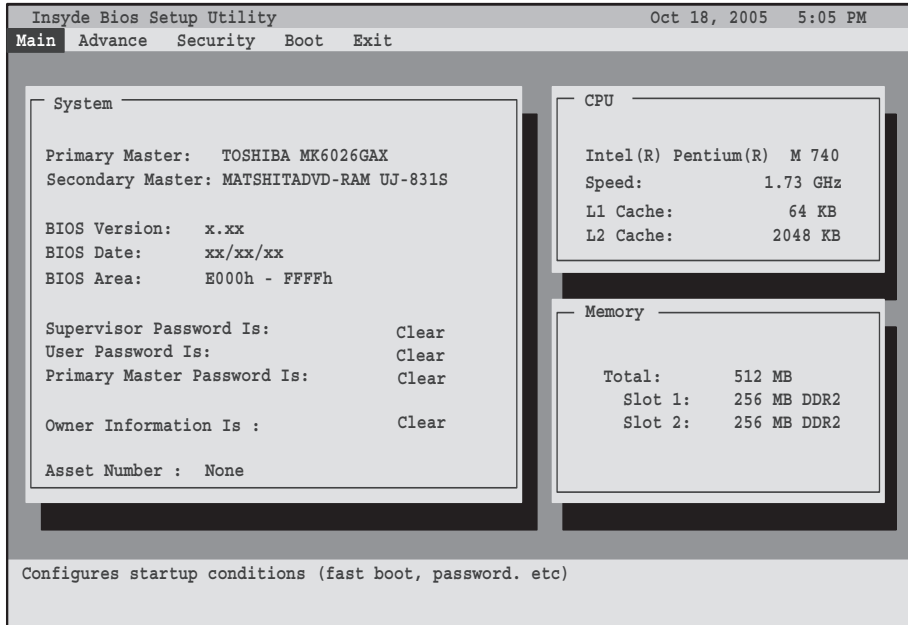


Figure 1. Information Menu

**Table 1: Fields, Options and Defaults for the Information Menu**

Note that the parameters shown in the figure may vary depending upon your system's configuration.

Block Name	Field Name		Description
System	<ul style="list-style-type: none"> <li>Primary Master:</li> <li>Secondary Master:</li> <li>BIOS Version:</li> <li>BIOS Date:</li> <li>BIOS Area:</li> </ul>	<ul style="list-style-type: none"> <li>Supervisor Password Is:</li> <li>User Password Is:</li> <li>Primary Master Password Is:</li> <li>Owner Information Is:</li> <li>Asset Number:</li> </ul>	The System block contains information about the system setup, including current password statuses, installed drives, BIOS version and location, and owner information. For information on changing this information, see the appropriate section of this manual.
CPU	<ul style="list-style-type: none"> <li>Processor Name</li> <li>Speed:</li> </ul>	<ul style="list-style-type: none"> <li>L1 Cache:</li> <li>L2 Cache:</li> </ul>	The CPU block provides information about the type and speed of the processor, and the size of the cache(s).
Memory	<ul style="list-style-type: none"> <li>Total:</li> <li>Slot 1:</li> <li>Slot 2:</li> </ul>		The Memory block displays the size and location of the currently installed memory.

## MAIN MENU – SETTING STANDARD SYSTEM PARAMETERS

The Main Menu allows you to set some of the current system parameters. Follow the instructions for Navigating Through The Setup Utility to make any changes. (See *Navigating Through The Setup Utility* on page 2 for more information.)

The following tables show the names of the menu fields for the Main menu and its submenus, all of the options for each field, the default settings, and a description of the field's function and any special information needed to help understand the field's use.

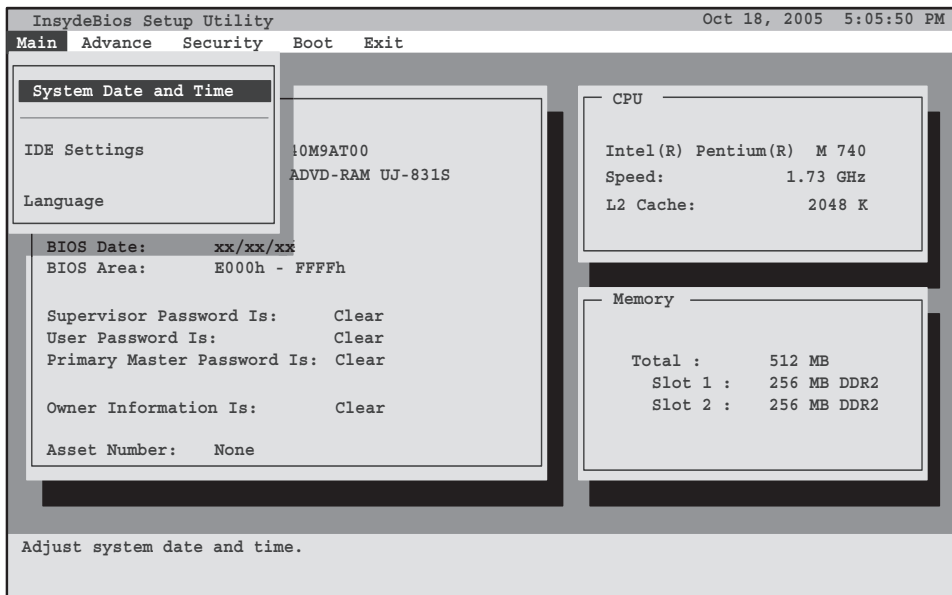


Figure 2. Main Menu

**Table 2: Fields, Options and Defaults for the Main Menu**

Note that the parameters listed in the following table may vary depending upon your system's configuration.

Menu Field	Description
System Date and Time	When selected, opens the System Date and Time submenu, which allows you to change the system date and time. Note that System Date and Time can also be set from your operating system without using the setup utility. Use the Date and Time icon on your Windows Control panel. (Figure 3)
IDE Settings	When selected, opens the IDE Settings submenu, which allows setting the timing for the hard drive, the ATA/ATAPI device(s) to use, and enabling or disabling the SMART function.
Language	When selected, opens the Language submenu, which allows you to select the language to be used.

## Main Menu -> System Date/Time Submenu – Setting the date and time

The System Date and Time submenu of the Main menu allows you to set the current date and time. You may change each segment of the date and time separately. Move between the segments with the [Tab] key, then use the cursor keys to move the values up or down. The current date and time are displayed in the bar in the right top corner of the screen.

The following figure shows the System Date and Time submenu.

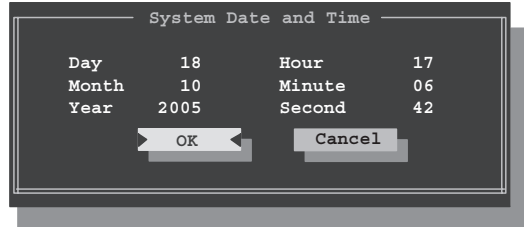


Figure 3. System Date and Time Submenu

Table 3: Fields, Options and Defaults for the System Date and Time Submenu

Menu Field	Options	Description
Day	▪ 1 - 31	Displays the current day. To change any of the settings in the System Date and Time Submenu, enter the window using the [Tab] key, then enter the date fields by clicking the [Tab] key again. Use the left-right cursor keys to move from field to field, and the up-down cursor keys to change the value.
Month	▪ 1 - 12	Displays the current month. To change the value, see "Day" above.
Year	▪ Variable	Displays the current year. To change the value, see "Day" above.
Hour	▪ 0 - 23	Displays the current hour. To change the value, see "Day" above.
Minute	▪ 0 - 59	Displays the current minute. To change the value, see "Day" above.
Second	▪ 0 - 59	Displays the current second. To change the value, see "Day" above.

## Main Menu -> IDE Settings Submenu – Setting the timing and ATI/ATAPI Device

The IDE Settings submenu of the Main menu allows you to select a speed for the hard disk drive, which device(s) to use, and whether to support SMART functions.

The following figure shows the IDE Settings submenu.

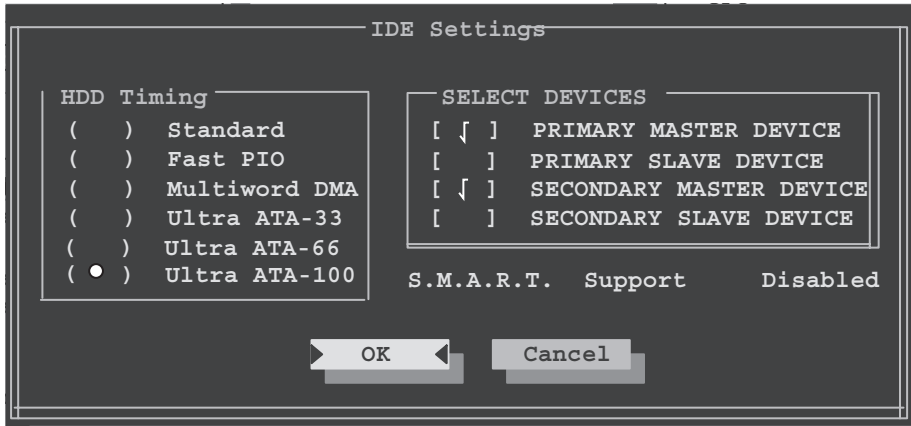


Figure 4. IDE Settings Submenu

**Table 4: Fields, Options and Defaults for the IDE Settings Submenu**

Note that the parameters listed in the following table may vary depending upon your system's configuration.

Menu Field	Options	Default	Description
IDE Settings	<b>HDD Timing:</b> <ul style="list-style-type: none"> <li>Standard</li> <li>Fast PIO</li> <li>Multiword DMA</li> <li>Ultra ATA-33</li> <li>Ultra ATA-66</li> <li>Ultra ATA-100</li> </ul>	[Ultra ATA-100]	Select the timing for the hard drive or select [Standard] to disable the feature. If the hard drive cannot support a selected speed, it will choose the next one available. (Figure 4)
	<b>Select Devices:</b> <ul style="list-style-type: none"> <li>Primary Master Device</li> <li>Primary Slave Device</li> <li>Secondary Master Device</li> <li>Secondary Slave Device</li> </ul>	[Primary Master Device/ Secondary Master Device]	Selects the ATA/ATAPI device(s) to use. (Figure 4)
	<b>S.M.A.R.T. Support:</b> <ul style="list-style-type: none"> <li>Disabled</li> <li>Enabled</li> </ul>	[Disabled]	Enables or disables the SMART function, which performs such services as self-monitoring and analysis. (Figure 4)

## Main Menu -> Language Submenu -> Choosing a Language

The Language submenu of the Main menu automatically defaults to [English] on this version of the BIOS; [Japanese] is not selectable.



Figure 5. Language Submenu

**Table 5: Fields, Options and Defaults for the Language Submenu**

Note that the parameters listed in the following table may vary depending upon your system's configuration.

Menu Field	Options	Default	Description
Language	<ul style="list-style-type: none"> <li>▪ English</li> <li>▪ Japanese</li> </ul>	[English]	Automatically defaults to English.

### Exiting from Main Menu

When you have finished setting the parameters on this menu, you can either exit from the setup utility, or move to another menu. If you wish to exit from the setup utility, press the [Esc] key or use the cursor keys to go to the Exit menu. If you wish to move to another menu, use the cursor keys.

## ADVANCE MENU – SETTING DEVICE FEATURE CONTROLS

The Advance Menu allows you to:

- Set the NumLock action.
- Select between the display panel and an external CRT display.
- Enable or disable compensation for your display.
- Enables or disables the internal controllers.
- Configure CPU and USB features in your system.

Follow the instructions for Navigating Through the Setup Utility to make any changes.

(See *Navigating Through The Setup Utility* on page 2 for more information.)

The following tables show the names of the menu fields for the Advance Menu and its submenus, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use.

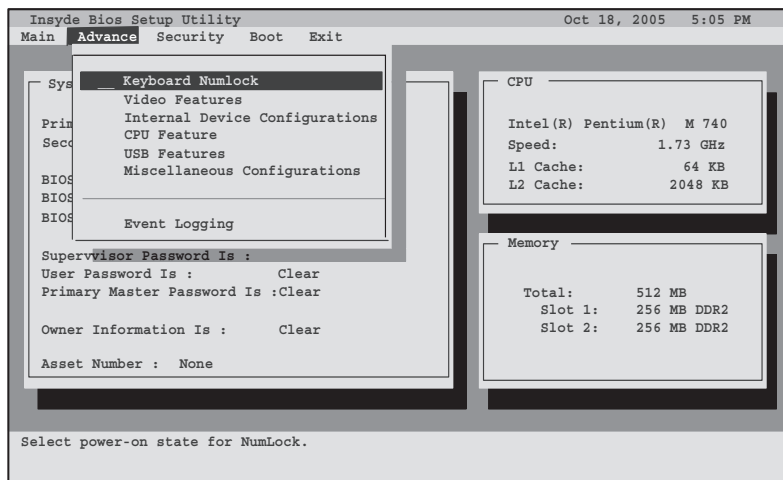


Figure 6. Advance Menu

Table 6: Fields, Options and Defaults for the Advance Menu

Menu Field	Options	Description
Keyboard Numlock	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	When selected, enables the Numlock button.
Video Features	—	When selected, opens the Video Features submenu, which allows setting of the display parameters, including routing of video signals to different displays.
Internal Device Configurations	—	When selected, opens the Internal Device Configuration submenu, which allows enabling or disabling the Modem, LAN, and WLAN Controllers.
CPU Features	—	When selected, opens CPU Features submenu to let you enable or disable XD Bit functionality.
USB Features	—	When selected, opens the USB Features submenu to allow you to enable or disable the legacy support and SCSI SubClass support (e.g., floppy disk drive, external optical drive).
Miscellaneous Configurations	—	When selected, opens the Miscellaneous Configurations submenu to allow you to enable or disable the power button, the Wake Up On LAN feature, and system beep. Systems with Windows XP Media Center Edition also have a Wake Up On USB Device option.
Event Logging	—	When selected, opens the event logging submenu.



## Video Features Submenu of the Advance Menu

The Video Features Submenu is for setting the display parameters.

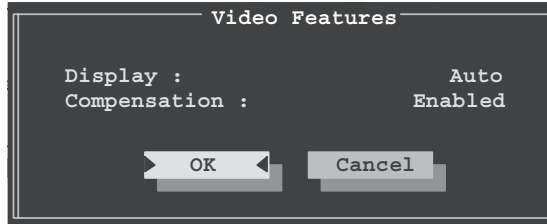


Figure 7. Video Features Submenu

Table 7: Fields, Options and Defaults for the Video Features Submenu of the Advance Menu

Menu Field	Options	Default	Description
Display:	<ul style="list-style-type: none"> <li>▪ Auto</li> <li>▪ Internal Flat Panel</li> <li>▪ External</li> </ul>	[Auto]	Selects where the video signal will be routed. Note: The Windows video driver overrides this setting.
Compensation:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables compensation which controls spacing on the display. When enabled, displays with less than pixel resolution 1024 x 768 or 800 x 600 will still cover the entire screen. A resolution below 800 x 600 will fill the screen, but due to the low resolution, will appear blocky and may not be acceptable. Note: The Windows video driver overrides this setting.

## Internal Device Configurations Submenu of the Advance Menu

The Internal Device Configuration submenu allows the user to configure other internal devices.

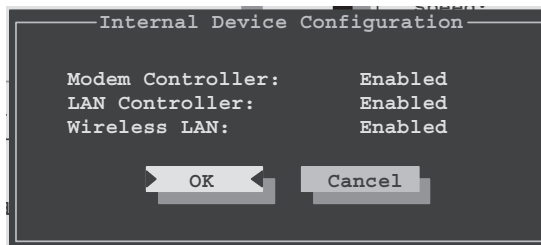


Figure 8. Internal Device Configuration Submenu

Table 8: Fields, Options and Defaults for the Internal Device Configuration Submenu of the Advance Menu

Menu Field	Options	Default	Description
Modem Controller:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables Modem controller.
LAN Controller:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the LAN controller.
Wireless LAN:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the wireless LAN.

## CPU Features Submenu of the Advance Menu

The CPU Features Submenu provides options for enabling or disabling the XD Bit functionality.

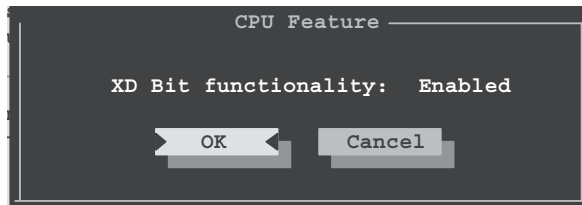


Figure 9. CPU Features Submenu

Table 9: Fields, Options and Defaults for the CPU Features Submenu of the Advance Menu

Menu Field	Options	Default	Description
XD Bit functionality:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Enabled is selected, XD Bit functionality is enabled. When Disabled is selected, XD Bit functionality is disabled.

## USB Features Submenu of the Advance Menu

The USB Features Submenu provides options for enabling or disabling the USB devices.

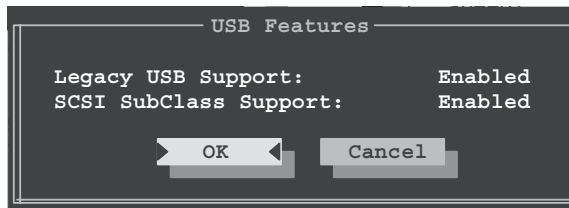


Figure 10. USB Features Submenu

Table 10: Fields, Options and Defaults for the USB Features Submenu of the Advance Menu

Menu Field	Options	Default	Description
Legacy USB Support:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Enabled is selected, Legacy USB Emulation is enabled and the USB devices are available without a USB-aware OS. When Disabled is selected, Legacy USB support is disabled.
SCSI SubClass Support:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Enabled is selected, USB devices that belong to the SCSI subclass in the mass storage class (e.g., USB Memory Key) are enabled. Note that enabling this feature may cause the system to hang during POST, depending on the device that is connected.

## Miscellaneous Configurations Submenu of the Advance Menu

The Miscellaneous Configurations Submenu provides options for enabling or disabling the power button and the Wake Up On LAN feature, and for enabling or disabling the system beep.

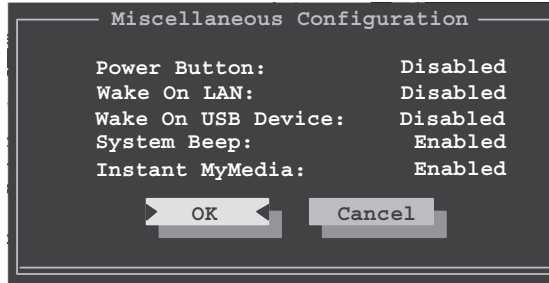


Figure 11. Miscellaneous Configurations Submenu

Table 11: Fields, Options and Defaults for the Miscellaneous Configurations Submenu of the Advance Menu

Menu Field	Options	Default	Description
Power Button:	<ul style="list-style-type: none"> <li>Disabled</li> <li>Power Off</li> </ul>	[Disabled]	Selecting Disabled disables the power button. Selecting Power Off allows you to turn off system power with the power button.
Wake On LAN:	<ul style="list-style-type: none"> <li>Disabled</li> <li>Enabled</li> </ul>	[Disabled]	Selecting Enabled allows the system to wake up when the internal LAN device receives a specific signal while in power-off state. Selecting Disabled disables this feature.
Wake On USB Device:	<ul style="list-style-type: none"> <li>Disabled</li> <li>Enabled</li> </ul>	[Disabled]	Selecting Enabled allows the system to wake up when the USB device receives a specific signal while in power-off state. Selecting Disabled disables this feature. Note that this feature is only applicable to systems running Windows XP Media Center Edition.
System Beep:	<ul style="list-style-type: none"> <li>Disabled</li> <li>Enabled</li> </ul>	[Enabled]	Allows you to enable and disable the system beep.
Instant MyMedia:	<ul style="list-style-type: none"> <li>Disabled</li> <li>Enabled</li> </ul>	[Enabled]	Allows you to enable and disable the Instant MyMedia utility.

## Event Logging Submenu of the Advance Menu

The Event Logging Submenu configures event logging features for DMI events.

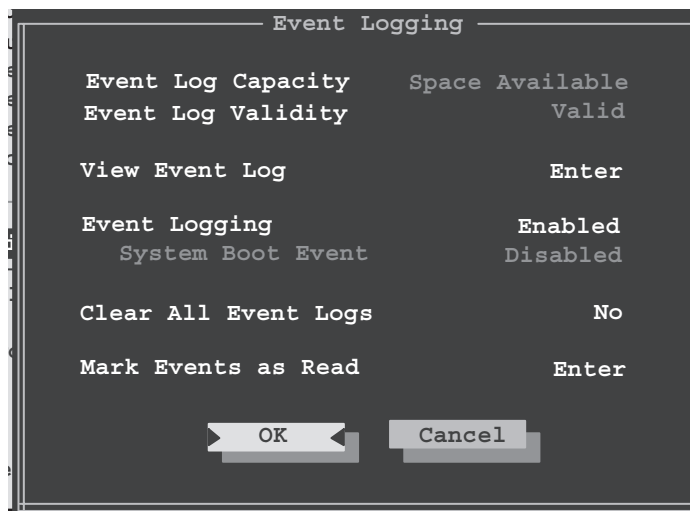


Figure 12. Event Logging Submenu

Table 12: Fields, Options and Defaults for the Event Logging Submenu of the Advance Menu

Menu Field	Options	Default	Description
Event Log Capacity:	—	Space Available	Display only
Event Log Validity:	—	Valid	Display only
View Event Log:	▪ Enter	[Enter]	Allows you to view content of event log
Event Logging:	▪ Disabled ▪ Enabled	[Enabled]	Turns event logging on and off for all DMI events.
System Boot Event:	▪ Disabled ▪ Enabled	[Disabled]	Turns event logging on and off for DMI system boot events.
Clear All Event Logs:	▪ No ▪ Yes	[No]	When set to [Yes] all event logs will be cleared at next boot.
Mark Events as Read:	▪ Enter	[Enter]	Allows you to mark all events currently in the event log as having been read.

## SECURITY MENU – SETTING THE SECURITY FEATURES

The Security menu allows you to set up the data security features of your notebook to fit your operating needs and to view the current security configuration. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through The Setup Utility* on page 2 for more information.)

The following tables show the names of the menu fields for the Security menu and its submenu, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use. The default condition is no passwords required and no write protection.



If you set a password, write it down and keep it in a safe place. If you forget the password you will have to contact your support representative to regain access to your secured functions and data.



- Entering a password incorrectly 3 times in a row will cause the keyboard and mouse to be locked out and the warning [System Disabled] to be displayed. If this happens restart the computer by turning off and on the power with the power switch and use the correct password on reboot.
- If you make an error when re-entering the password a [Warning] will be displayed on the screen. To try again press the Enter key and then retype the password. Press the Esc key to abort the password setting process.
- If the Power Management Security is Enabled and the Password on Boot is Disabled you will not have to type your password upon resuming the system from the Suspend or Save-to-Disk modes. Power Management Security will work only if Password boot is enabled.

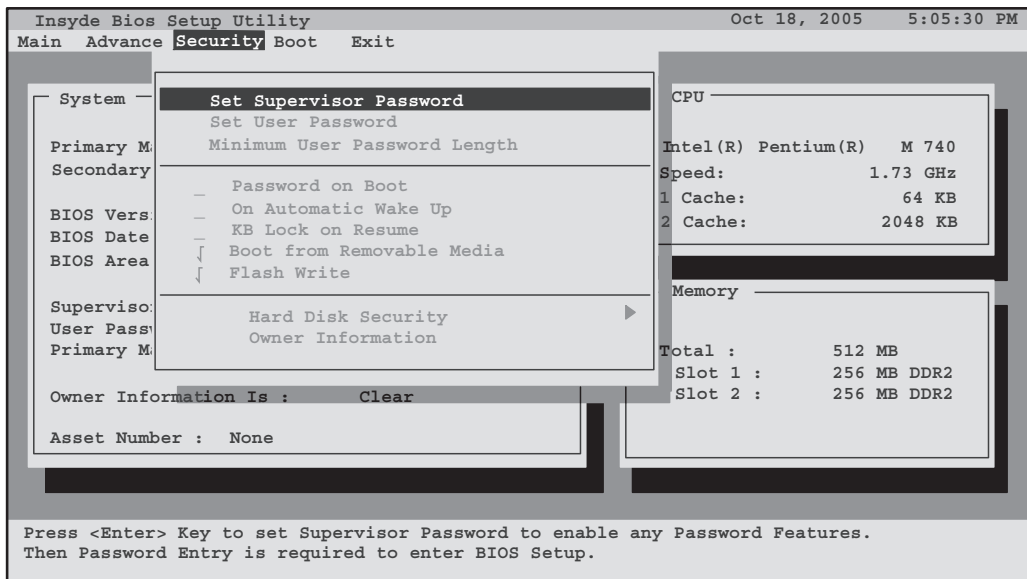


Figure 13. Security Menu

**Table 13: Fields, Options and Defaults for the Security Menu**

Menu Field	Options	Default	Description
Set Supervisor Password	—	[Enter]	Sets, changes or cancels the Supervisor Password. Supervisor's Password may be up to eight characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Admin Password field and in the Verify New Admin Password field. When a Supervisor Password is set it must be used to access the BIOS setup utility.
Set User Password	—	[Enter]	This field can only be accessed if the Supervisor Password is set. Sets, changes or cancels the User Password. The User Password may be up to eight characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New User Password field and in the Verify New User Password field. When a User Password is set it must be used to access the BIOS setup utility.
Minimum User Password Length	—	[Enter]	Supervisor can set password length (0 to 8) for user password. User cannot set a password shorter than the minimum length.
Password on Boot	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	[ _ ]	When selected, a password (User or Supervisor) is required every time after the Power On Self Test (POST) before the operating system will be read from a disk. When unselected, no password is required.
On Automatic Wake up	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	[ _ ]	When unselected, it is not necessary to enter a password to wake up from LAN or Real Time Clock (RTC). When selected, it is still necessary to enter a password after automatic wake-up.
KB Lock on Resume	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	[ _ ]	When selected, the PS/2 mouse and keyboard inputs are locked out upon Resume from Suspend or Save to Disk mode until you enter the password. When unselected, no password is required. If no Supervisor Password is set, this feature is not available and no password is required.
Boot from Removable Media	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	<input checked="" type="checkbox"/>	When selected, booting from removable media is not restricted. When Supervisor Only is unselected, only the Supervisor (i.e., the user who enters Supervisor password), can boot from removable media.
Flash Write	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	<input checked="" type="checkbox"/>	When unselected, the BIOS Flash memory is write protected.
Hard Disk Security	—	—	Configures hard disk security features
Owner Information	—	—	Sets Owner information.

## Hard Disk Security Submenu of the Security Menu

The Hard Disk Security Submenu is for configuring hard disk security features.

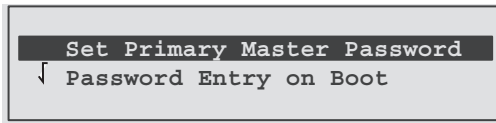


Figure 14. Hard Disk Security Submenu

Table 14: Fields, Options and Defaults for the Hard Disk Security Submenu of the Security Menu

Menu Field	Options	Default	Description
Set Primary Master Password	---	[Enter]	When the Supervisor Password has been set, the field can be changed. When enabled, the hard disk is locked with the password. Data in the locked disk cannot be read on any systems other than the original system on which it is locked or systems that have the identical password setting. (Figure 15)
Password Entry on Boot	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	<input checked="" type="checkbox"/>	When unselected, the master password entry is not required before booting the operating system, but the hard disk is still password-protected without password entry.

The Set Primary Password is for entering a new Primary Master Password.

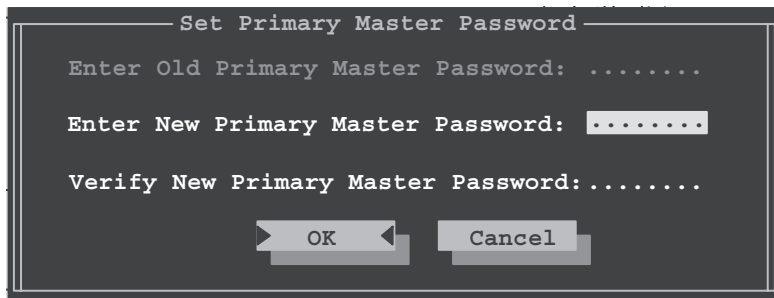


Figure 15. Set Primary Master Password Submenu

## Owner Information Submenu of the Security Menu

The Owner Information Submenu is for setting owner information. Note that the owner information cannot be set without having entered a Supervisor password.

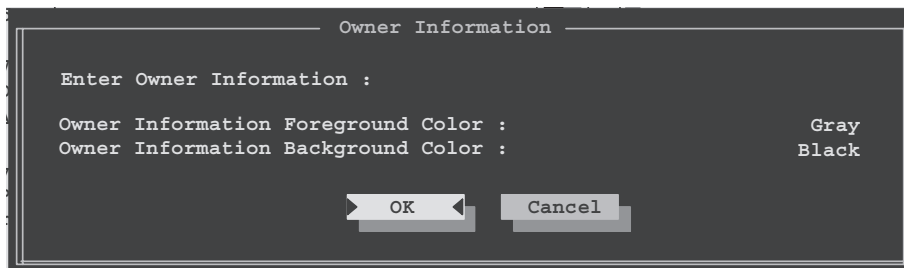


Figure 16. Owner Information Submenu

Table 16: Fields, Options and Defaults for the Owner Information Submenu of the Security Menu

Menu Field	Options	Default	Description
Set Owner Information:	—	[Enter]	Field to write owner information, (i.e., name).
Foreground Color:	<ul style="list-style-type: none"> <li>▪ Black</li> <li>▪ Blue</li> <li>▪ Green</li> <li>▪ Cyan</li> <li>▪ Red</li> <li>▪ Magenta</li> <li>▪ Brown</li> <li>▪ White</li> <li>▪ Gray</li> <li>▪ Light Blue</li> <li>▪ Light Green</li> <li>▪ Light Cyan</li> <li>▪ Light Red</li> <li>▪ Light Magenta</li> <li>▪ Yellow</li> <li>▪ Bright White</li> </ul>	[Gray]	Set foreground color.
Background Color:	<ul style="list-style-type: none"> <li>▪ Black</li> <li>▪ Blue</li> <li>▪ Green</li> <li>▪ Cyan</li> <li>▪ Red</li> <li>▪ Magenta</li> <li>▪ Brown</li> <li>▪ White</li> <li>▪ Gray</li> <li>▪ Light Blue</li> <li>▪ Light Green</li> <li>▪ Light Cyan</li> <li>▪ Light Red</li> <li>▪ Light Magenta</li> <li>▪ Yellow</li> <li>▪ Bright White</li> </ul>	[Black]	Set background color.

## Exiting from the Security Menu

When you have finished setting the parameters on the Security Menu, you can either exit from setup utility or move to another menu. If you wish to exit from setup utility, press the Esc key to go to the Exit Menu. If you wish to move to another menu, use the cursor keys.



## BOOT MENU – SELECTING THE OPERATING SYSTEM SOURCE

The Boot Menu is used to select the order in which the BIOS searches sources for the operating system. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through The Setup Utility* on page 2 for more information.)

The following tables show the names of the menu fields for the Boot menu and its submenu, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use.

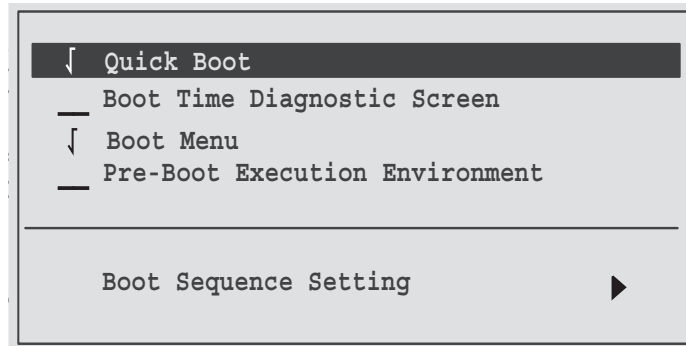


Figure 17. Boot Menu

Table 17: Fields, Options and Defaults for the Boot Menu

Menu Field	Options	Default	Description
QuickBoot	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	<input checked="" type="checkbox"/>	When selected, fewer Power On Self Tests are run in order to speed up booting. When unselected, all Power On Self Tests are run. (Fewer tests mean faster turn on.)
Boot-time Diagnostic Screen	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	<input type="checkbox"/>	Turns on and off display of test results instead of Fujitsu logo screen during Power On Self Test.
Boot Menu	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	<input checked="" type="checkbox"/>	When unselected, access to the Boot Menu with the [F12] key is disabled. When selected, the Boot Menu is enabled and the [F12] key will allow you to display it.
Preboot Execution Environment	<ul style="list-style-type: none"> <li>▪ <input checked="" type="checkbox"/> (Selected)</li> <li>▪ <input type="checkbox"/> (Unselected)</li> </ul>	<input type="checkbox"/>	Turns on and off the preboot execution environment feature.
Boot Sequence Setting	<input type="checkbox"/>	<input type="checkbox"/>	Opens the Boot Sequence Setting submenu.

## Boot Sequence Setting Submenu of the Boot Menu

The Boot Sequence Setting Submenu is for selecting the Boot Device Priority or Hard Disk Drive Sequence.

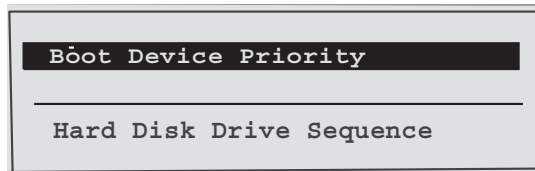


Figure 18. Boot Device Priority Submen

Table 18: Fields, Options and Defaults for Boot Sequence Setting Submenu

Menu Field	Description
Boot Device Priority	This menu allows setting up the source for the operating system. See "Boot Device Priority Submenu" in the following section.
Hard Disk Drive Sequence	When multiple hard drives are used with the system, this menu allows setting up the order in which the hard drives are sequenced. See "Hard Disk Drive Sequence Submenu" in the following section.

## Boot Device Priority Submenu of the Boot Menu

The Boot Device Priority Submenu is for setting the order for checking of sources for the operating system.

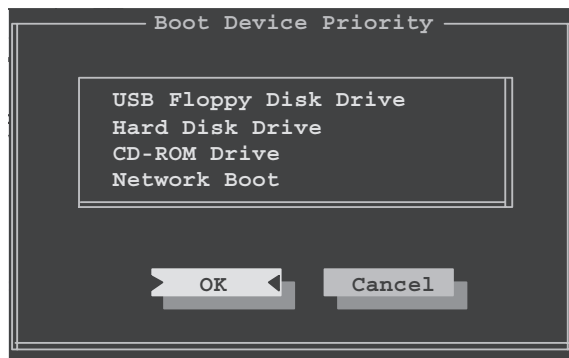


Figure 19. Boot Device Priority Submenu



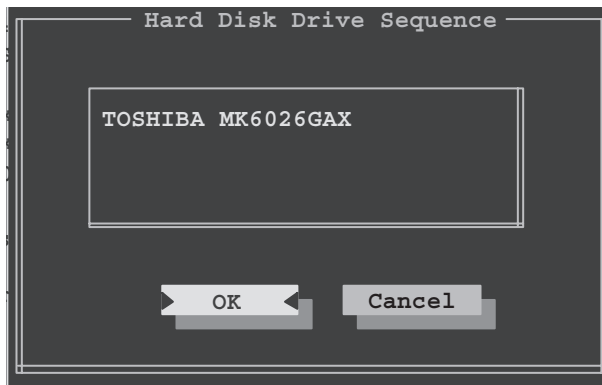
- Be aware of the operating environment when booting from a CD-ROM or you may overwrite files by mistake.
- A bootable CD-ROM has either a floppy disk format or a hard drive format. When the bootable CD-ROM is used, the drive allocations change automatically without changing the BIOS setup. If a floppy disk format is used, the CD-ROM becomes Drive A. The CD-ROM will only take drive C: (hard drive format) if the internal hard drive is not present or is disabled. The bootable CD-ROM can never use a C: designation if a formatted internal hard drive is present since the C: designator is always reserved for the internal hard drive. The boot sequence ignores the new drive designations, however, your application software will use the new designations.

**Table 19: Fields, Options and Defaults for the Boot Device Priority Submenu of the Boot Menu**

Menu Field	Description
+Floppy Disk Drive	The boot selections determine the order in which the BIOS searches for the operating system during a startup sequence. To change the order, highlight one source by using the [up] or [down] cursor keys and then press the [PgUp] or [PgDn] key to change the order number.  [Network Boot] only appears if [Preboot Execution Environment] is enabled.  NOTE: Be aware that if you use the CD-ROM drive as the first boot device, certain files may be overwritten, depending upon your operating environment.  NOTE: Bootable USB drives and thumb drives will be listed under the Hard Disk Drive heading.
+Hard Disk Drive	
CD-ROM Drive	
Network Boot	

### Hard Disk Drive Sequence Submenu of the Boot Menu

The Hard Disk Drive Sequence Submenu is for setting the order in which multiple hard disk drives are sequenced.



**Figure 20. Hard Disk Drive Sequence Submenu**

**Table 20: Fields, Options and Defaults for the Hard Disk Drive Sequence Submenu of the Boot Menu**

Menu Field	Description
Device Name . . . Device Name	When more than one hard disk drive is attached to the system, the selection order determines the order in which the drives are sequenced during boot up. To change the order, highlight one source by using the [up] or [down] cursor keys and then press the [PgUp] or [PgDn] key to change the order number.

### Exiting from Boot Menu

When you have finished setting the boot parameters with the Boot menu, you can either exit from the setup utility or move to another menu. If you wish to exit from the setup utility press the Esc key then, if you wish to move to another menu, use the cursor keys.

## EXIT MENU – LEAVING THE SETUP UTILITY

The Exit Menu is used to leave the setup utility. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through The Setup Utility* on page 2 for more information.)

The following table shows the names of the menu fields for the Exit menu and a description of the field's function and any special information needed to help understand the field's use.

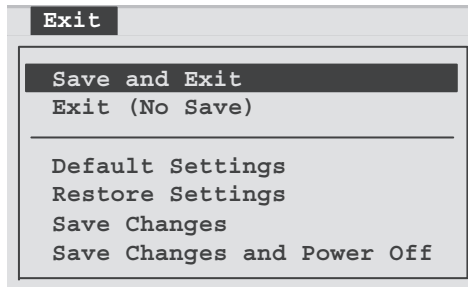


Figure 21. Exit Menu

Table 21: Fields, Options and Defaults for the Exit Menu

Menu Field	Description
Save and Exit	Save and Exit will store all the entries on every menu of the setup utility to the BIOS memory and then exit the setup utility. A confirmation message asking if you want to save the current parameters will be displayed. Click [OK] to save and exit, or [Cancel] to close the Save and Exit window. This action can also be accomplished by pressing the [F10] key.
Exit (No Save)	Exit (No Save) will exit the setup utility without saving any changes you may have made. A confirmation message asking if you want to exit will be displayed. Click [OK] to exit, or [Cancel] to close the Exit (No Save) window.
Default Settings	Selecting Default Settings will display a message asking if you want to load the default settings. When confirmed the setup utility will return to the Information Menu. This action can also be accomplished by pressing the [F9] key.
Restore Settings	Selecting Restore Settings will load the previous values in BIOS memory for all menu fields. A message asking if you want to load original custom settings will be displayed. When confirmed the setup utility will return to the Exit menu.
Save Changes	Selecting Save Changes will save any changes you've made into the BIOS memory for all menu fields. A message asking if you want to restore the current setup to the original custom values will be displayed. When [OK] is pressed, the changes will be saved.
Save Changes and Power Off	Selecting Save Changes and Power Off will save any changes you've made into the BIOS memory for all menu fields, then the system will power off. A message asking if you want to restore the current setup to the original custom values will be displayed. When [OK] is pressed, the changes will be saved and the system will shut down.